WHAT IS CLAIMED IS:

1-11. (Previously Cancelled).

12. (Previously Added) A method for isolating nucleic acids from a sample containing nucleic acids comprising

(A) mixing, at a pH of 7 or less, the sample with a water-insoluble polymer that is not ionic in the basic and neutral range, is a bead polymer having an average particle size of from 3 to 100 µm, and consists of polymerized units of

(a) 5 to 98% by weight of amino monomer,

(b) 0.3 to 30% by weight of crosslinker, and

(c) 0 to 93% by weight of vinyl monomer,

thereby absorbing the nucleic acids,

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(B) separating the water-insoluble polymer on which is absorbed the nucleic acids, and

(C) mixing the water-insoluble polymer with an aqueous phase with a pH of greater than 7, thereby liberating the adsorbed nucleic acids.

13. (Previously Added) A method according to Claim 12 wherein the sample is a biological material that is lysed after step (A).

14. (Currently Amended) A method according to Claim 12 wherein the polymer is

(1) a water-insoluble, macroporous bead polymer that has an average particle size of from 3 to 100 µm and a specific surface area measured by the ~~BET~~ Brunauer-Emmett-Teller method of from 5 to 500 m^2/g and consists of polymerized units of

(a) 5 to 98% by weight of amino monomer,

(b) 0.3 to 30% by weight of crosslinker, and

(c1) 0 to 93% by weight of hydrophobic vinyl monomer, or

(2) a bead polymer that is able to swell in water well, has an average particle size of from 3 to 100 µm, and consists of polymerized units of

(a) 5 to 79.5% by weight of amino monomer,

(b) 0.3 to 10% by weight of crosslinker, and

(c2) 10 to 93% by weight of hydrophilic vinyl monomer.

15. (Currently Amended) A method according to Claim 12 wherein the polymer is

(1) a water-insoluble, macroporous bead polymer that has an average particle size of from 3 to 100 µm, a pore diameter of from 10 to 1000 nm, and a specific surface area measured by the ~~BET~~ Brunauer-Emmett-Teller method of from 5 to 500 m^2/g and consists of polymerized units of

(a) 5 to 98% by weight of amino monomer,

(b) 2 to 30% by weight of crosslinker, and

(c1) 0 to 93% by weight of hydrophobic vinyl monomer, or

(2) a bead polymer that is insoluble in water but swellable in water, has an average particle size of from 3 to 100 µm, and consists of polymerized units of

(a) 5 to 79.5% by weight of amino monomer,

(b) 0.3 to 10% by weight of crosslinker, and

(c2) 10 to 93% by weight of hydrophilic vinyl monomer.

16. (Currently Amended) A water-insoluble, macroporous bead polymer that has an average particle size of from 3 to 100 µm, a pore diameter of from 10 to 1000 nm, and a specific surface area measured by the ~~BET~~ Brunauer-Emmett-Teller method of from 5 to 500 m^2/g and consists of polymerized units of

(a) 5 to 98% by weight of amino monomer,

(b) 2 to 30% by weight of crosslinker, and

(c1) 0 to 93% by weight of hydrophobic vinyl monomer.

17. (Previously Added) A bead polymer that is insoluble in water but swellable in water, has an average particle size of from 3 to 100 µm, and consists of polymerized units of

(a) 5 to 79.5% by weight of amino monomer,

(b) 0.3 to 10% by weight of crosslinker, and

(c2) 10 to 93% by weight of hydrophilic vinyl monomer.

18. (Currently Amended) A method for preparing water-insoluble, macroporous bead polymers that have an average particle size of from 3 to 100 µm, a pore diameter of from 10 to 1000 nm, and a specific surface area measured by the ~~BET~~ Brunauer-Emmett-Teller method of from 5 to 500 m^2/g comprising

(1) dispersing, in an aqueous medium using a protective colloid, a mixture of

(a) 5 to 98 parts by weight of amino monomer,

(b) 2 to 30 parts by weight of crosslinker,

(c1) 0 to 93 parts by weight of hydrophobic vinyl monomer,

(d) 10 to 150 parts by weight of porogen, and

(e) 0.1 to 2.5 parts by weight of free-radical former,

(2) polymerizing the resulting dispersion by heating to the decomposition temperature of the free-radical former, and

(3) thereafter removing the porogen by extraction and/or evaporation.

19. (Previously Added) A method for preparing bead polymers that are insoluble but swellable in water and have an average particle size of from 3 to 100 µm comprising

(1) dispersing, in an aqueous medium using a protective colloid, a mixture of

(a) 5 to 79.7% by weight of amino monomer,

(b) 0.3 to 10% by weight of crosslinker,

(c2) 10 to 93% by weight of hydrophilic vinyl monomer,

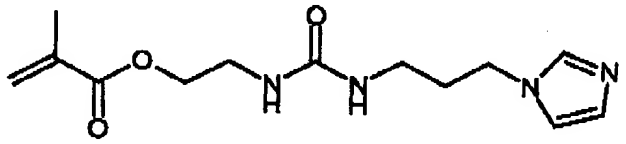
(d) 10 to 150 parts by weight of solvent, and

(e) 0.1 to 2.5 parts by weight of free-radical former

(2) polymerizing the resulting dispersion by heating to the decomposition temperature of the free-radical former, and

(3) thereafter removing the porogen by extraction and/or evaporation.

20. (Previously Added) A method according to Claim 12 wherein the amino monomer is a compound of formula (I)



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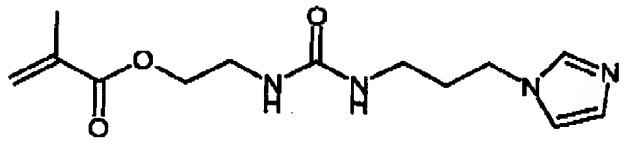
21. (Previously Added) An amino monomer of formula (I)



(I).

22. (Previously Added) A method for preparing the amino monomer of Claim 21 comprising reacting 2-isocyanatoethyl methacrylate with 3-aminopropylimidazole.

23. (Currently Amended) A composition for isolating nucleic acids from a sample from a sample containing nucleic acids comprising

(1) water-insoluble macroporous bead polymers that have an average particle size of from 3 to 100 µm, a pore diameter of from 10 to 1000 nm, and a specific surface area measured by the ~~BET~~ Brunauer-Emmett-Teller method of from 5 to 500 m^2/g and consist of polymerized units of

(a) 5 to 98% by weight of amino monomer,

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(b) 2 to 30% by weight of crosslinker, and

(c1) 0 to 93% by weight of hydrophobic vinyl monomer, or

(2) bead polymers that are insoluble but swellable in water, have an average particle size of from 3 to 100 µm, and consist of polymerized units of

(a) 5 to 79.5% by weight of amino monomer,

(b) 0.3 to 10% by weight of crosslinker, and

(c2) 10 to 93% by weight of hydrophilic vinyl monomer.